

FIG. 1A

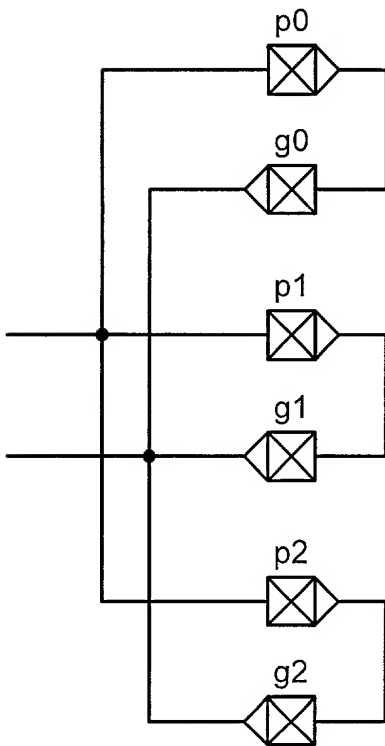


FIG. 1B

```

state E where
  E = ( p0 -> S1
        | gU -> E )
  S1 = ( p1 -> S2
         | g0 -> E )
  S2 = ( p2 -> F
         | g1 -> S1 )
  F = ( pU -> F
        | g2 -> S2 )
end

```

FIG. 1C

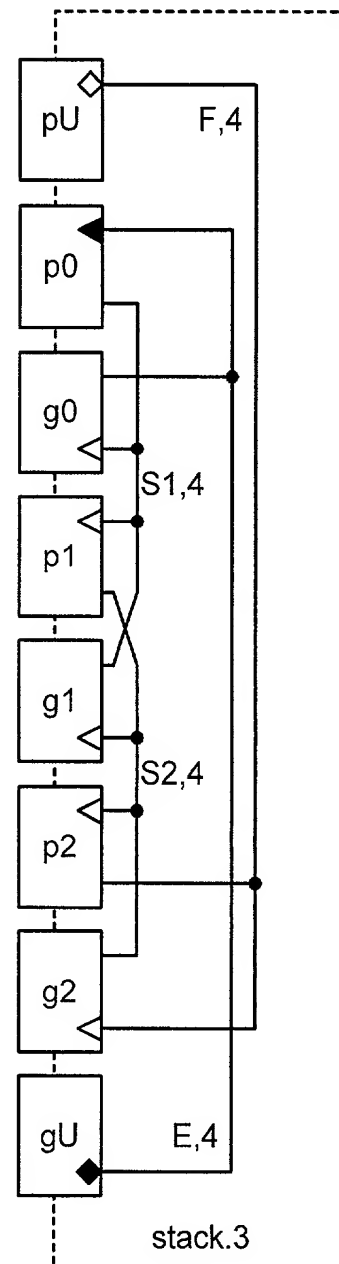


FIG. 1D

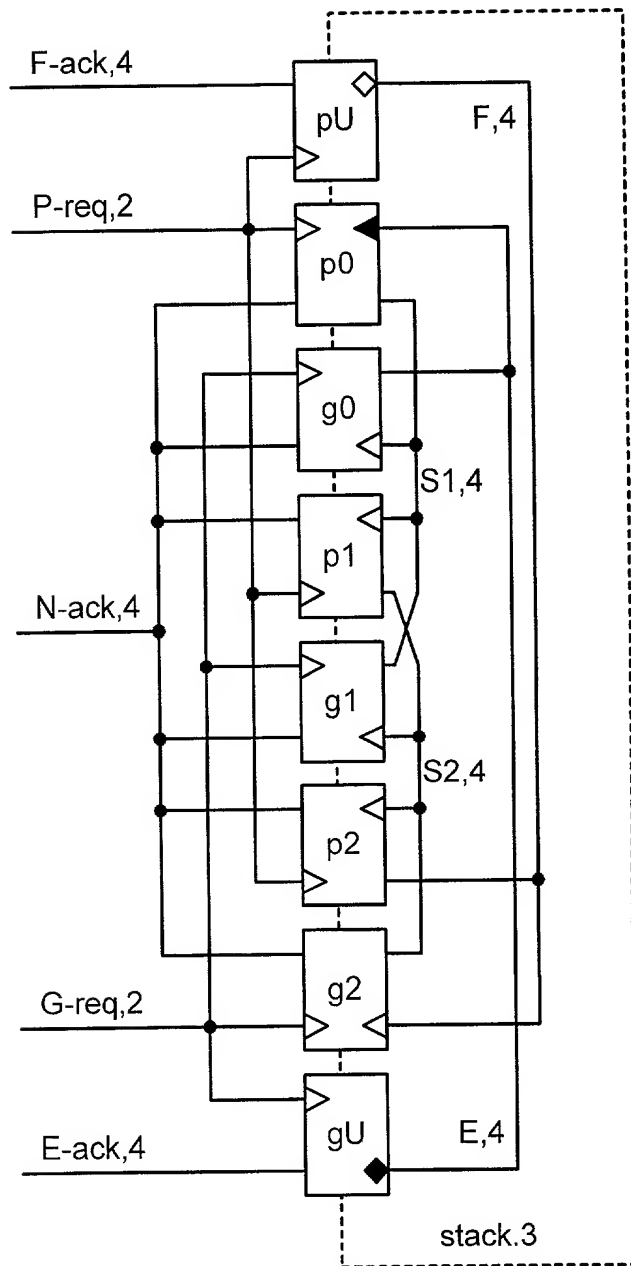


FIG. 2

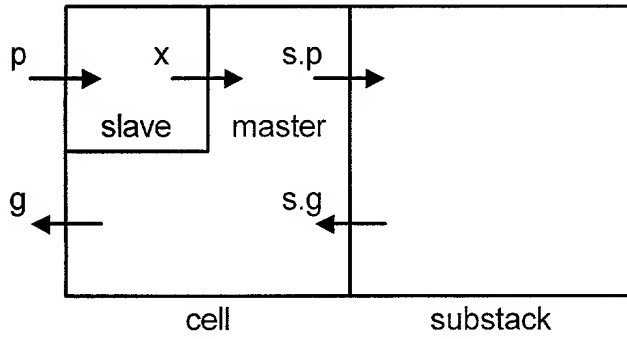


FIG. 3A

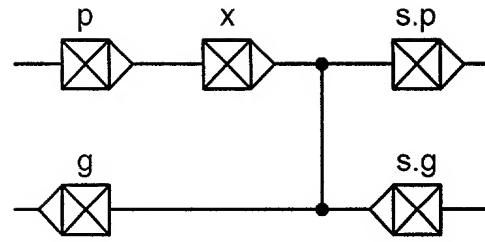


FIG. 3B

```
cell = ( p -> s.p -> x -> cell
        | g -> s.g -> cell )
```

FIG. 3C

```
cell =
state N where
  N = ( p -> P
        | g -> G )
  P = ( s.p -> X )
  G = ( s.g -> N )
  X = ( x -> N )
end
```

FIG. 3D

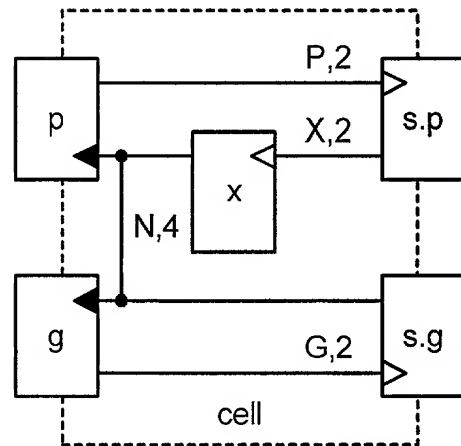


FIG. 3E

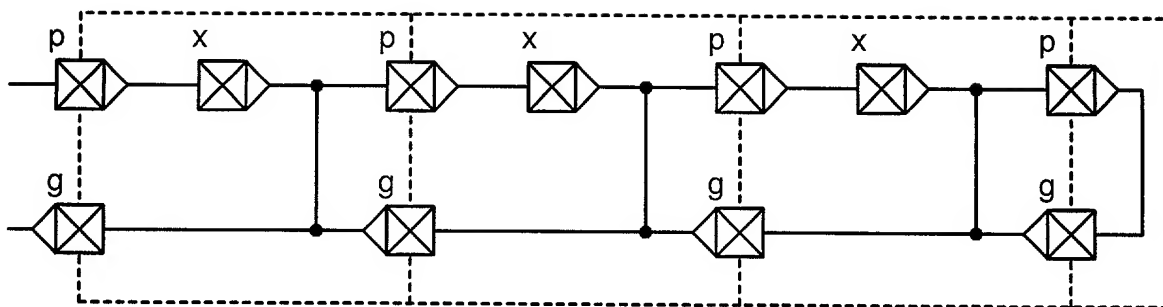


FIG. 4A

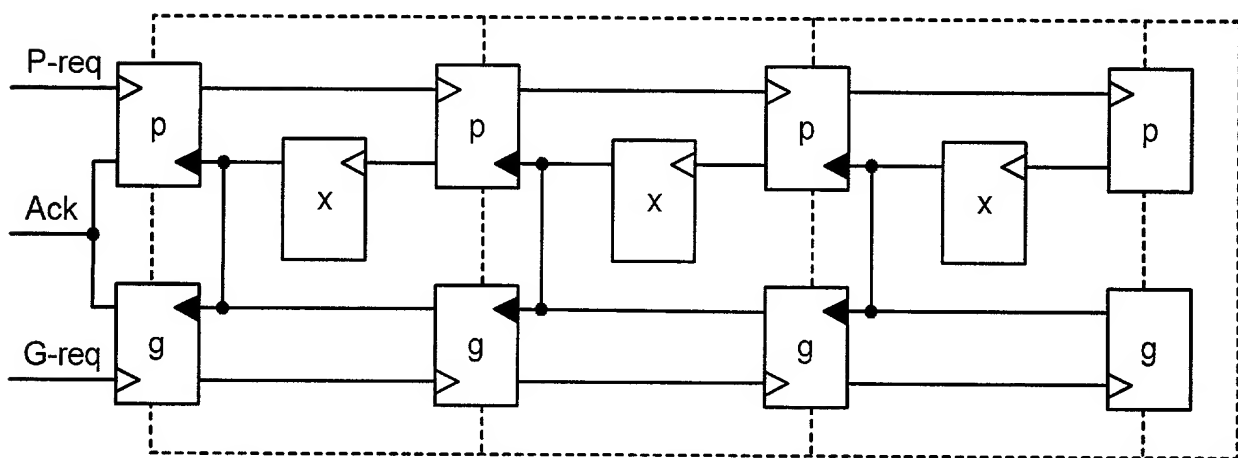


FIG. 4B

205000 15515001

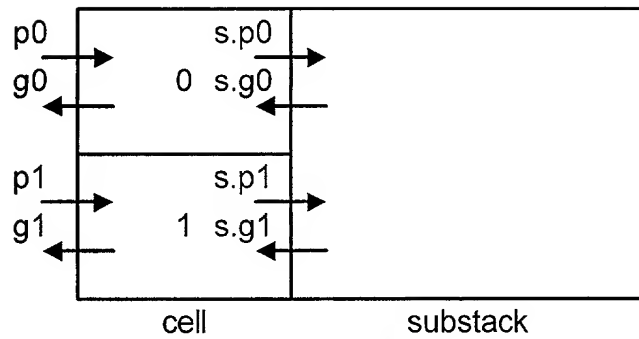


FIG. 5A

```

cell =
state N0 where
  N0 = ( p0 -> s.p1 -> N1
        | g1 -> s.g0 -> N1 )
  N1 = ( p1 -> s.p0 -> N0
        | g0 -> s.g1 -> N0 )
end

```

FIG. 5C

```

cell =
state N0 where
  N0 = ( p0 -> P1
        | g1 -> G0 )
  N1 = ( p1 -> P0
        | g0 -> G1 )
  P0 = ( s.p0 -> N0 )
  P1 = ( s.p1 -> N1 )
  G0 = ( s.g0 -> N1 )
  G1 = ( s.g1 -> N0 )
end

```

FIG. 5D

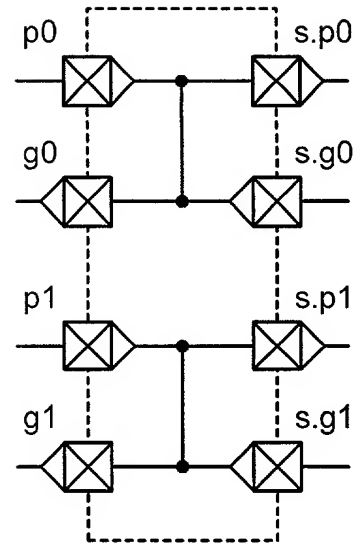


FIG. 5B

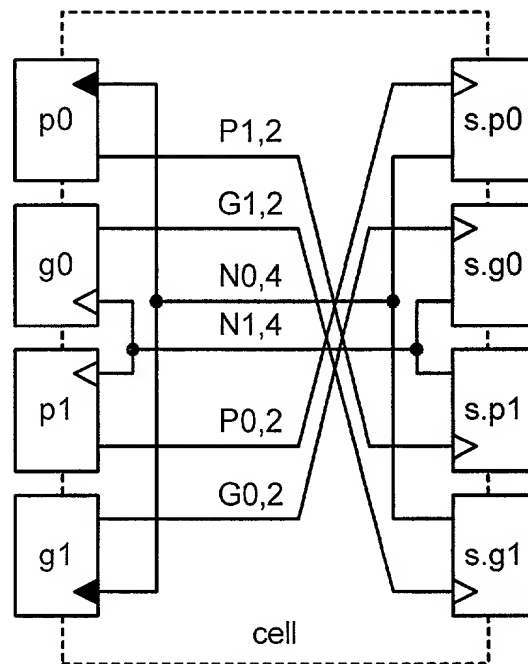


FIG. 5E

FIG. 6A

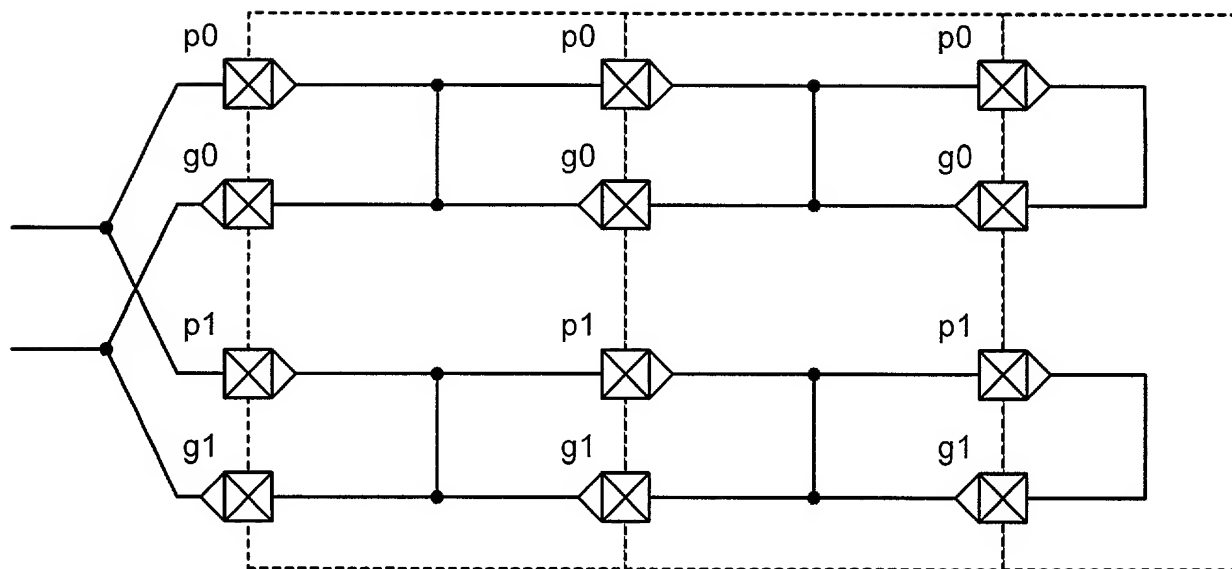
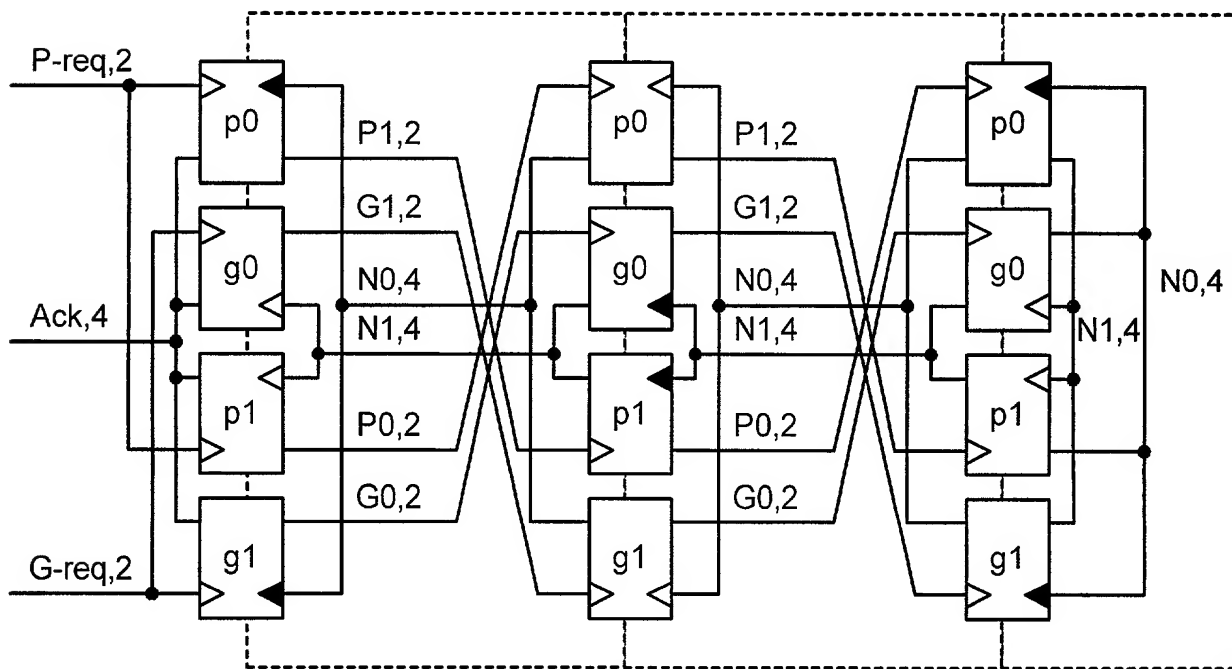


FIG. 6B



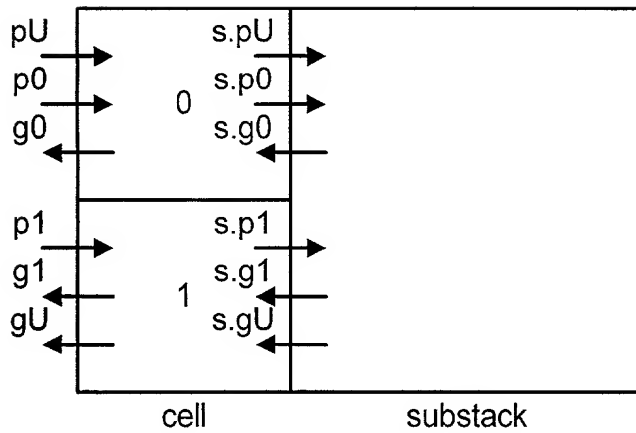


FIG. 7A

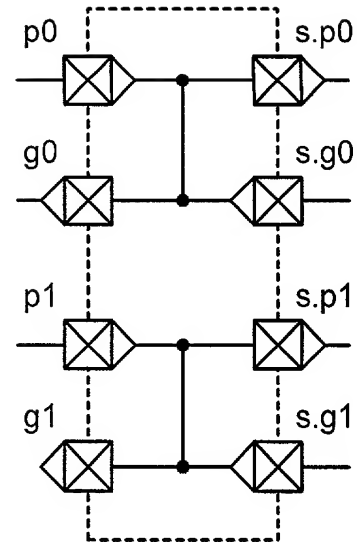


FIG. 7B

```

state E where
  E = ( p0 -> N1
        | gU -> E )
  N1 = ( p1 -> (s.p0 -> N0
                | s.pU -> F )
        | g0 -> (s.g1 -> N0
                | s.gU -> E ) )
  N0 = ( p0 -> s.p1 -> N1
        | g1 -> s.g0 -> N1 )
  F = ( pU -> F
        | g1 -> N1 )
end

```

FIG. 7C

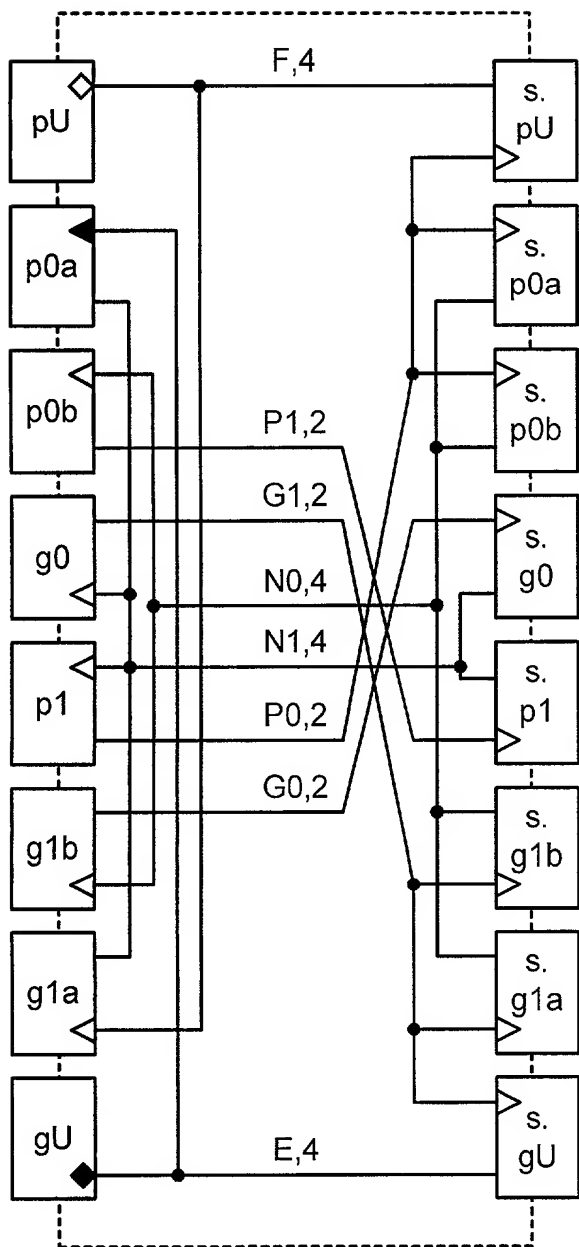


FIG. 8A

```

cell =
state E where
    E = ( p0a -> N1
          | gU  -> E )
    N1 = ( p1   -> P0
           | g0  -> G1 )
    N0 = ( p0b -> P1
           | g1b -> G0 )
    F   = ( pU  -> F
           | g1a -> N1 )
    P0  = ( s.p0a -> N0
           | s.p0b -> N0
           | s.pU  -> F )
    G0  = ( s.g0  -> N1 )
    P1  = ( s.p1  -> N1 )
    G1  = ( s.g1a -> N0
           | s.g1b -> N0
           | s.gU  -> E )
end

```

FIG. 8B

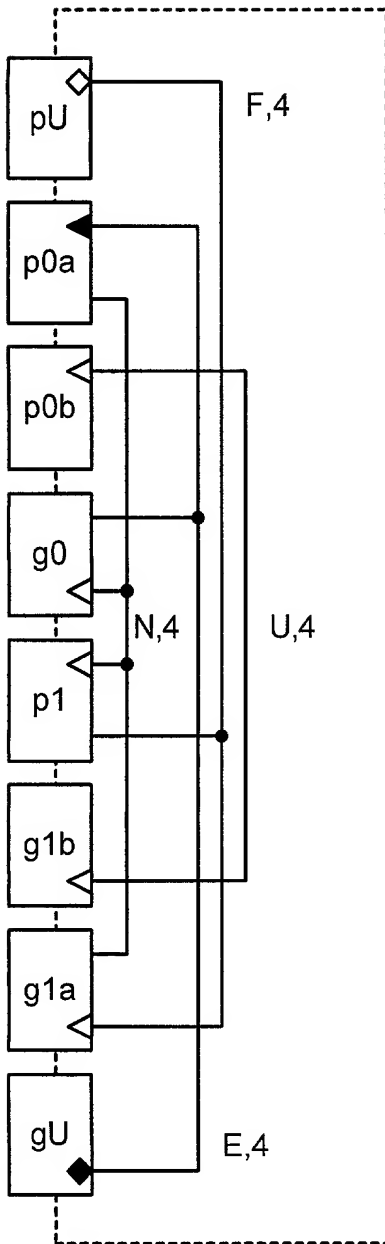


FIG. 9A

```

stack(2) =
state E where
    E = ( p0a -> N
        | gU  -> E )
    N = ( p1  -> F
        | g0  -> E )
    F = ( pU  -> F
        | g1a -> N )
    U = ( p0b | g1b )
end

```

FIG. 9B

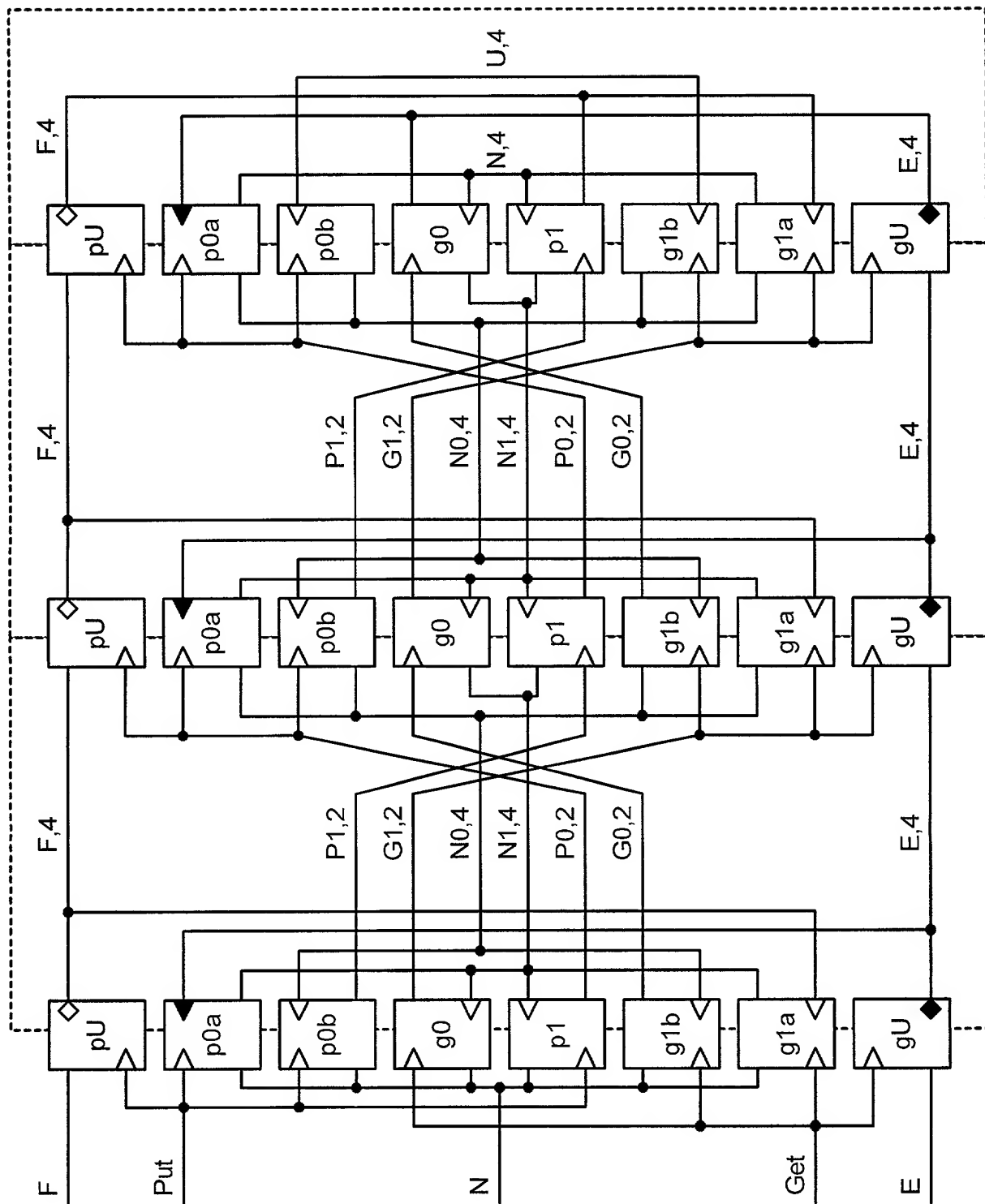


FIG. 10

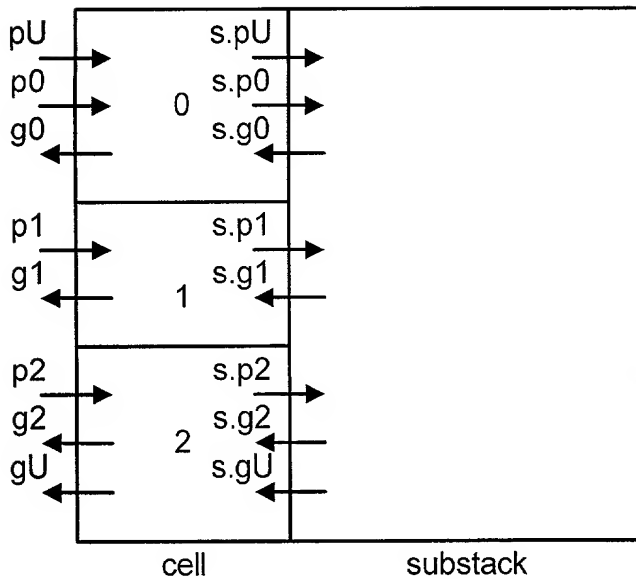


FIG. 11A

state E where

```

E = ( p0 -> N1
      | gU -> E )
N0 = ( p0 -> if full(1) then P1
      | g2 -> if full(1) then N2
      | else N1 fi )
N1 = ( p1 -> if full(2) then P2
      | g0 -> if full(2) then N0
      | else N2 fi )
N2 = ( p2 -> if full(0) then P0
      | g1 -> if full(0) then N1
      | else G0 fi )

F = ( pU -> F
      | g2 -> N2 )
P0 = ( s.p0 -> N0
      | s.pU -> F )
P1 = ( s.p1 -> N1 )
P2 = ( s.p2 -> N2 )
G0 = ( s.g0 -> N1 )
G1 = ( s.g1 -> N2 )
G2 = ( s.g2 -> N0
      | s.gU -> E )

```

end

FIG. 11C

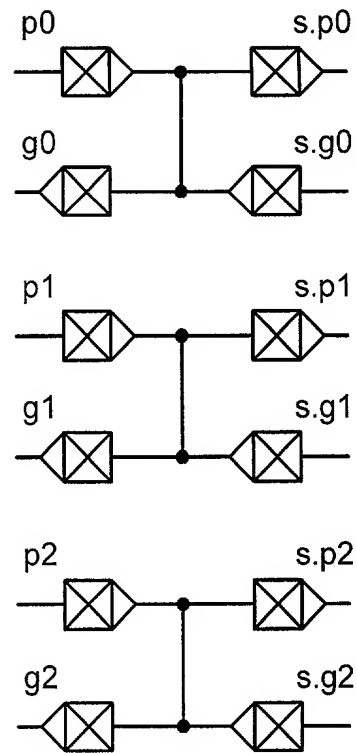


FIG. 11B

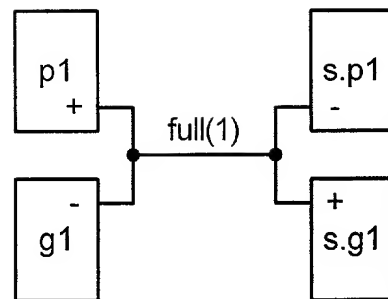


FIG. 11D

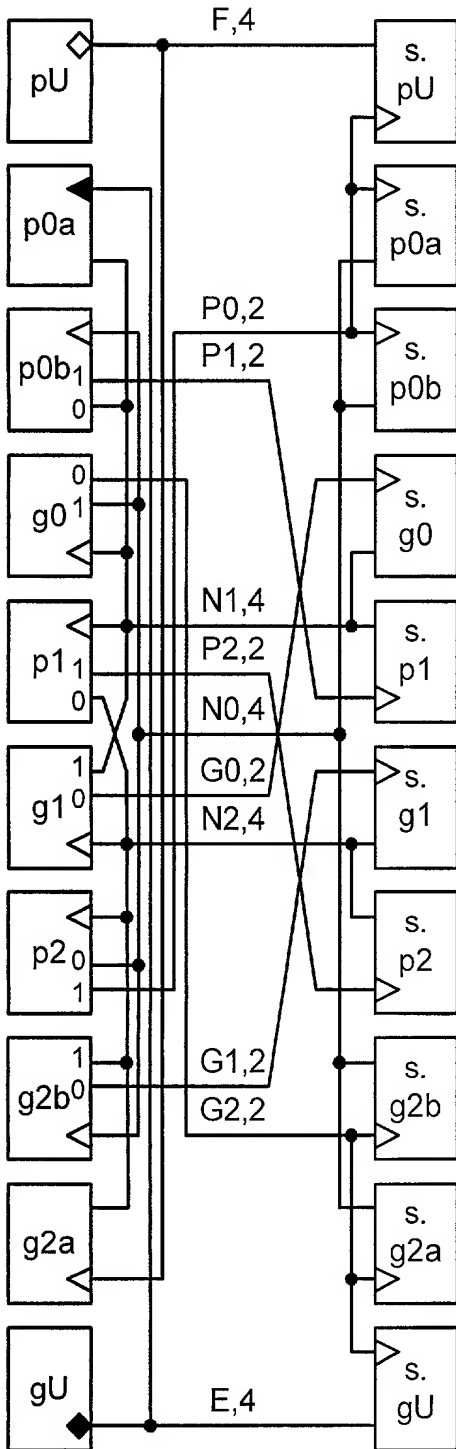


FIG. 12A

```

state E where
  E = ( p0a -> N1
      | gU  -> E )
  N0 = ( p0b -> if full(1) then P1
      |      else N1 fi
      | g2b -> if full(1) then N2
      |      else G1 fi )
  N1 = ( p1  -> if full(2) then P2
      |      else N2 fi
      | g0  -> if full(2) then N0
      |      else G2 fi )
  N2 = ( p2  -> if full(0) then P0
      |      else N0 fi
      | g1  -> if full(0) then N1
      |      else G0 fi )

  F = ( pU  -> F
      | g2a -> N2 )
  P0 = ( s.p0a -> N0
      | s.p0b -> N0
      | s.pU  -> F )
  P1 = ( s.p1  -> N1 )
  P2 = ( s.p2  -> N2 )
  G0 = ( s.g0  -> N1 )
  G1 = ( s.g1  -> N2 )
  G2 = ( s.g2a -> N0
      | s.g2b -> N0
      | s.gU  -> E )
end

```

FIG. 12B

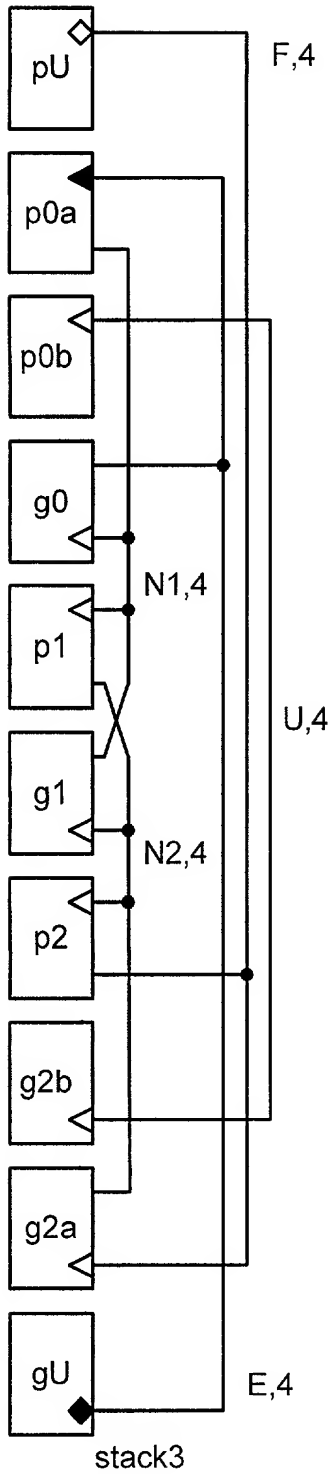


FIG. 13A

```

stack3 =
state E where
    E = ( p0a -> N1
        | gU  -> E )
    N1 = ( p1  -> N2
        | g0  -> E )
    N2 = ( p2  -> F
        | g1  -> N1 )
    F = ( pU  -> F
        | g2a -> N2 )
    U = ( p0b | g2b )
end

```

FIG. 13B

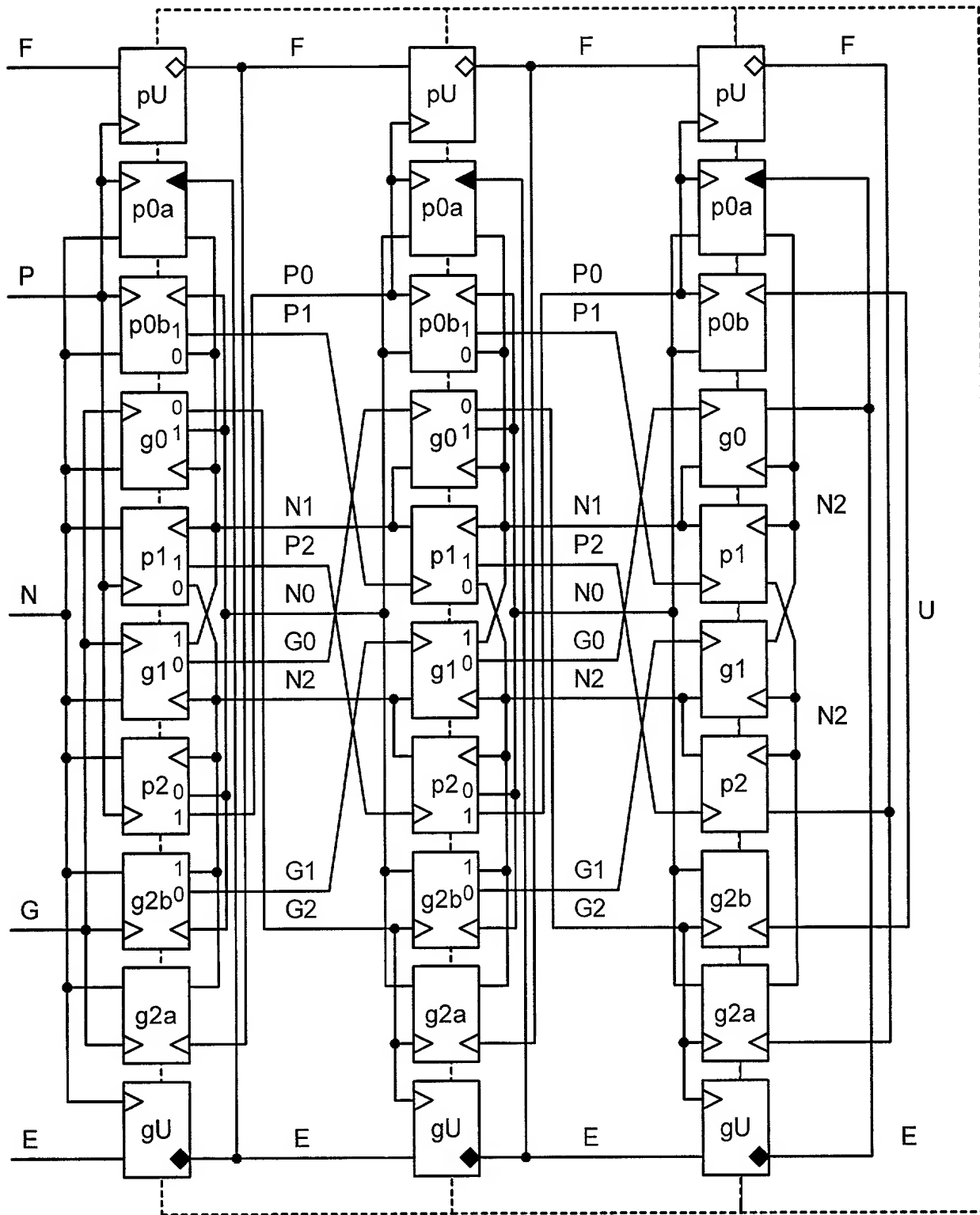


FIG. 14

Symbol

Implementation

Symbol

Implementation

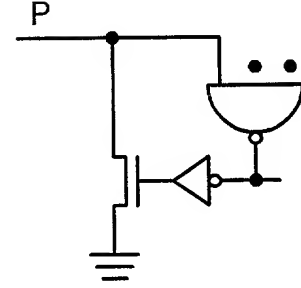
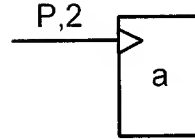
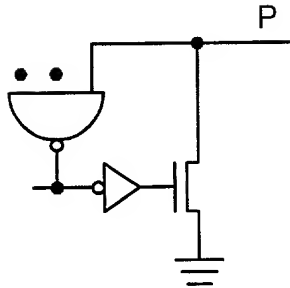
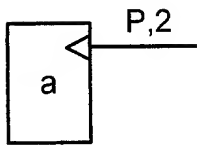


FIG. 15A

Symbol

Implementation

Symbol

Implementation

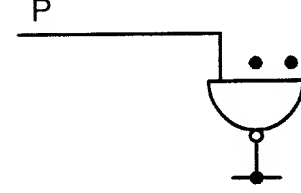
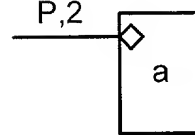
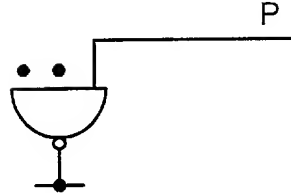
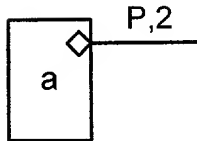


FIG. 15B

Symbol

Implementation

Symbol

Implementation

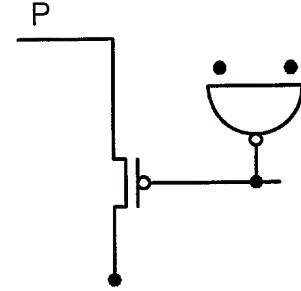
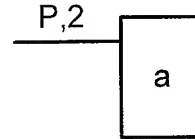
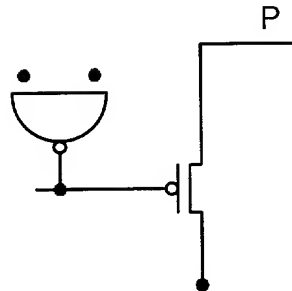
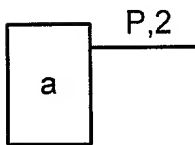


FIG. 15C

205060-16515001

Symbol

Implementation

Symbol

Implementation

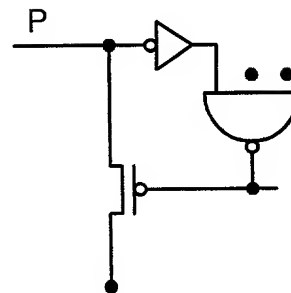
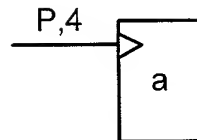
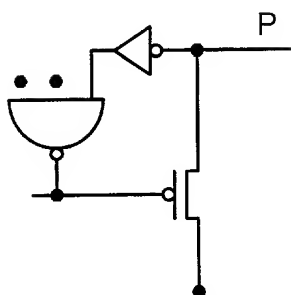
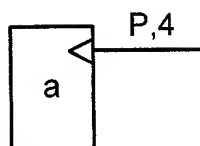


FIG. 16A

Symbol

Implementation

Symbol

Implementation

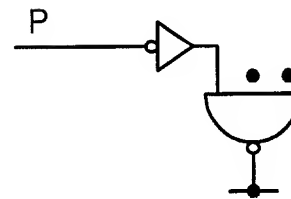
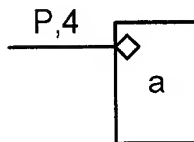
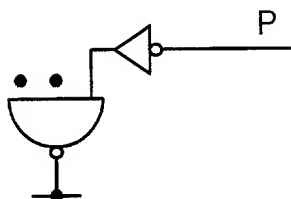
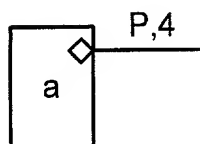


FIG. 16B

Symbol

Implementation

Symbol

Implementation

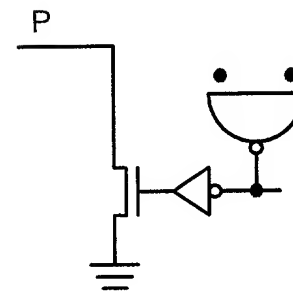
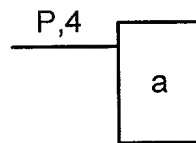
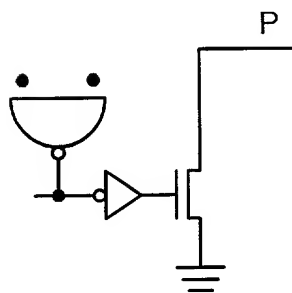
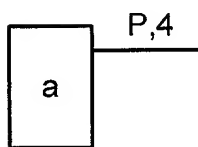


FIG. 16C

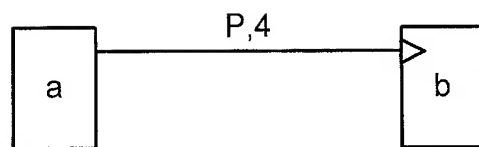


FIG. 17A

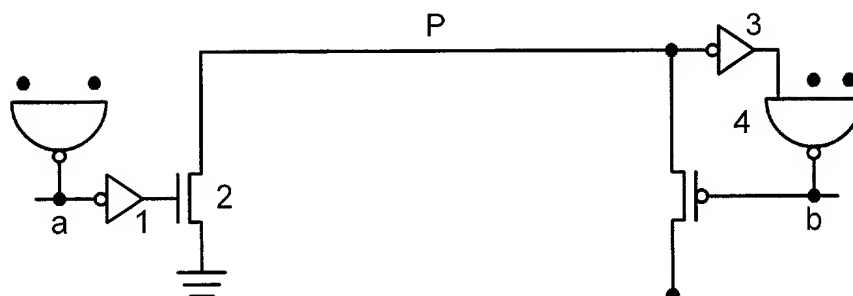


FIG. 17B

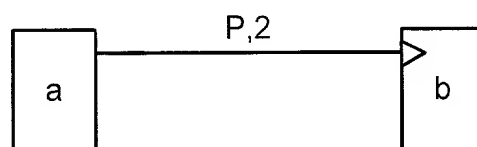


FIG. 17C

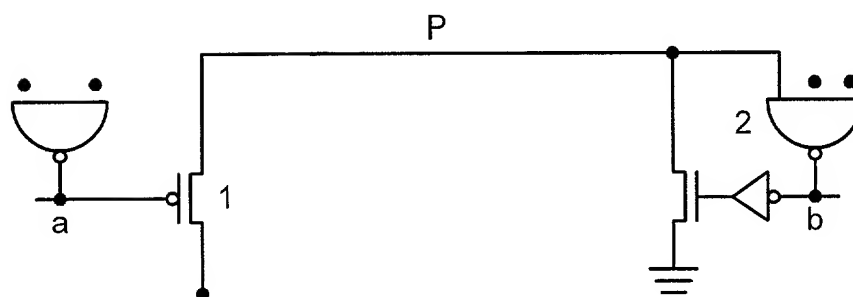


FIG. 17D

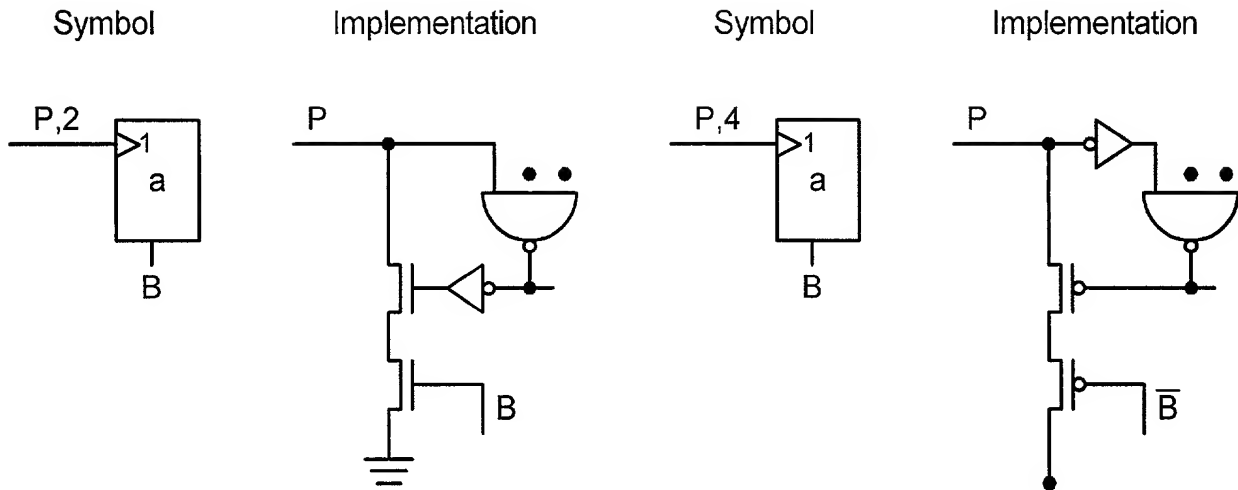


FIG. 18A

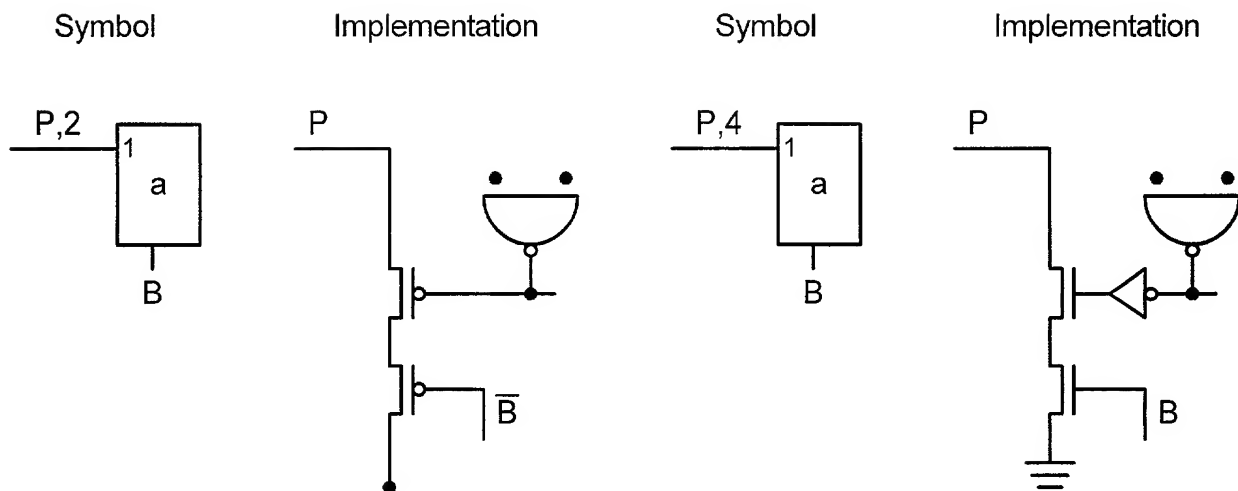


FIG. 18B

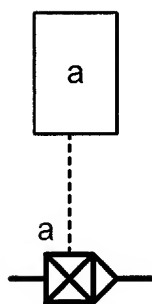


FIG. 19A

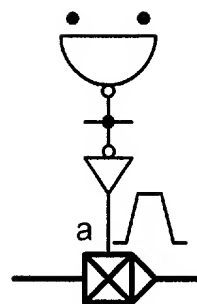


FIG. 19B